

Sub C1
 20. A kit for DNA sequence analysis, the kit comprising one or more sets of oligonucleotide probes wherein (i) each probe set contains at least 50 different-sequence, single-stranded oligonucleotides, (ii) the oligonucleotides have lengths up to 12 nucleotides, and (iii) in each set, the different-sequence, single-stranded oligonucleotides within that set have substantially the same free energy of duplex formation.

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 21. The kit of claim 20 wherein each set contains from 50 to 10,000 different different-sequence, single-stranded oligonucleotides.

22. The kit of claim 20 wherein, for at least one said set, the different-sequence, single stranded oligonucleotides in that set have annealing temperatures whose maximum and minimum values differ from each other by no more than 1°C.

4 4 2 2
 23. The kit of claim 22 wherein said annealing temperatures have a value from 22°C to 70°C.

Sub C2
 24. The kit of claim 23 wherein said different-sequence, single-stranded oligonucleotides have lengths of 8, 9, or 12 nucleotides.

5 6 2
 25. The kit of claim 22 which further includes an initializing oligonucleotide having a length of from 20 to 30 nucleotides, for binding to a target nucleic acid.

26. A kit for DNA sequence analysis, the kit comprising one or more sets of oligonucleotide probes wherein (i) each probe set contains 50 to 10,000 different-sequence, single-stranded oligonucleotides, (ii) the oligonucleotides are 8 to 12

nucleotides in length, and (iii) in each set, the different-sequence, single-stranded oligonucleotides within that set are from the same stringency class.

Sub 27
27. The kit of claim 26, further including one or more initializing oligonucleotides and one or more solid phase supports having templates attached thereto, the templates each comprising a target polynucleotide having a binding region capable of forming a perfectly matched duplex with one or more of the initializing oligonucleotides.

28. The kit of claim 26 wherein each probe set contains 50 to 500 different-sequence, single-stranded oligonucleotides.

29. The kit of claim 28 wherein each stringency class is defined by a selected range of annealing temperatures.

Sub 30
30. The kit of claim 29 wherein at least one selected range of annealing temperatures spans defines a 1°C interval.

31. The kit of claim 30 wherein each of said probes has a length of 8, 9, or 12 nucleotides.--

Abstract

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Attached is a separate page (page 32) containing an Abstract for the subject matter of claims 20-31.